

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG -9 2002

Mr. James F. Colburn
EG&G Defense Materials

Mr. Dale A. Ormond
Acting TOCDF Site Project Manager

Mr. Harold K. Oliver
Civilian Executive Assistant
Department of the Army
Program Manager for Chemical Demilitarization
Tooele Chemical Agent Disposal Facility
11620 Stark Road
Tooele, Utah 84074

Messrs. Colburn, Ormond and Oliver:

On April 19, 2002, the National Program Chemicals Division (NPCD) of the U.S. Environmental Protection Agency (EPA) granted the U.S. Army Program Manager for Chemical Demilitarization, Aberdeen Proving Ground, Maryland (PMCD) approval to initiate PCB Disposal operations exclusively at the Tooele Chemical Agent Disposal Facility (TOCDF), Tooele, Utah, for startup and shakedown operations and to perform the TSCA PCB Disposal Demonstration Test Burn on M55 Rockets containing nerve agent VX. This approval limited TOCDF to processing 2,000 M55 Rockets for the purpose of performing the demonstration test burn. Your letter dated July 17, 2002 informs us that a portion of the M56 Rocket Warheads are packaged in the same shipping and firing tubes as the M55 Rockets. These shipping and firing tubes contain PCBs and therefore are regulated under the Toxic Substance Control Act (TSCA). In addition, you require an increase in the quantity of rockets and warheads to perform the shakedown and demonstration test burns. By this letter, NPCD grants approval for TOCDF to increase the number of M55 Rockets and M56 Rocket Warheads to 3,500 for processing during the shakedown of the Deactivation Furnace System (DFS) and demonstration test burns to destroy VX-containing rockets and warheads.

Your request to process additional rockets and warheads includes the necessary requirements for personnel training and the fine tuning of the DFS. Continuous operation of the DFS requires implementation of four operating crews rotating in twelve-hour shifts. Each shift must be trained to carry out an effective and flexible operating schedule leading to the demonstration test burn. Using two training sessions of six-hour duration for each crew with a

CONCURRENCES

SYMBOL	7404T	7404T	7404T	7404T			
SURNAME	Dodohara	Thurman	Byrnes	J.F.			
DATE	8/2/02	2/8/02	8/8/02	AUG 9 2002			

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 FOB Chron:Read File/DS File/Subject File/Author File
 Trial Burn 2, results, TOCDF, Army, DFS, chemical agent



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

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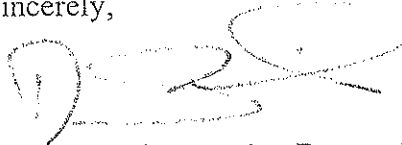
Recycled/Recyclable
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contains at least 50% recycled fiber

feed rate of thirty one per hour, the total number of rockets and warheads required is 1,860. In addition, fine tuning of an adjustable shroud which encompasses the kiln in the DFS will be required prior to the demonstration test burn. The shroud serves to cool the outer surface of the kiln as well as to pre-heat a portion of the air flowing into the kiln. During the demonstration test burns, stack emission sampling requires predictable stack gas velocities in order to maintain the required isokinetic sampling. Moreover, using M56 Rocket Warheads, every tenth rocket will be fed undrained to demonstrate an increase in agent feed rate. Fine tuning of the shroud adjustment and adjustments for the revised feed rate schedule will require four six-hour runs at thirty one rockets per hour for a total of 740 rockets and warheads.

Finally, TOCDF plans to perform two sets each of three demonstration test burns with M55 Rockets and M56 Rocket Warheads. These test burns will consume 900 rockets and warheads for a total of 3,500 rockets for TOCDF to perform the shakedown and demonstration test burns of VX rockets and warheads. NPCD approves the processing of the increased quantity of rockets, amending the demonstration test burn approval. Enclosed is Page 2 of the approval including the revised conditions which facilitate the changes in operation. Please replace page(s) as appropriate.

If further assistance is needed on technical issues, please contact Hiroshi Dodohara at (202) 566-0507.

Sincerely,

A handwritten signature in dark ink, appearing to read "David J. Kling", with a stylized flourish at the end.

David J. Kling, Acting Deputy Director
Office of Pollution Prevention and Toxics

Enclosure

cc: EPA Regional PCB Coordinator
Regions I - X

OPB Files (3)

2. Other Permits or Approvals: Prior to commencing the Demonstration Test Burn, the Army must obtain any necessary Federal, State or local permits or approvals. During the course of the Demonstration Test Burn, the Army shall comply with all conditions and requirements of such permits or approvals.

3. Feedstock Restrictions: During the Demonstration Test Burn period, the TOCDF DFS thermal treatment process may be used by the Army to deactivate no more than 3,500 PCB-contaminated rockets, each of which may contain more than 50 mg/kg PCBs.

4. Feedstock Characterization: The Army has sampled rockets from the stockpile of M55 rockets and M56 Rocket Warheads to characterize the feedstock. The average concentration of 1,247 ppm PCBs analyzed recently from a number of rockets may be used to calculate the total PCB feed and the destruction and removal efficiency (DRE) of PCBs in the TOCDF DFS. In accordance with EPA-disposal procedures outlined in the following documents, gas chromatography must be used to determine the concentration of PCBs:

"Guidelines for PCB Destruction Permit Applications and Demonstration Test Plans", EPA Contract No. 68-02-3938, April 16, 1985;

"Quality Assurance and Quality Control Procedures for Demonstrating PCB Destruction in Filing for an EPA Disposal Permit", USEPA, June 28, 1983 (Draft);

"Recommended Analytical Requirements for PCB Data Generated on Site During PCB Destruction Tests", December 12, 1985 (Draft); and

"Interim Guidelines and Specifications for Preparing Quality Assurance Plans", QAMS-005-/80, Office of Research and Development, USEPA, December 29, 1980.

Authorized EPA representatives must witness this Demonstration Test Burn and obtain appropriate split samples for verification of analytical results. The Army may conduct whatever additional analyses are necessary to characterize the waste feed and facilitate more efficient incineration, i.e., chloride content, ash content and heat of combustion.

The Army may dilute existing PCBs in the waste feed or add PCBs to the waste feed in order to achieve an appropriate PCB concentration for demonstration purposes.

5. EPA Laboratory Audit: EPA may provide samples of PCBs in test matrices, such as XAD4, in order to test the adequacy of analytical methods employed by the Army or its agent. EPA will inform the Army of the approximate range of PCB concentrations and the identity of the test matrix, if such samples are provided. The Army or its agent must determine the concentration of PCBs, polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) in the test materials collected during the regular Demonstration Test Burn period, and provide EPA with all chromatograms, calculations, and records regarding the analysis. EPA personnel may observe all or any portion of the analysis procedures.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION
TOOELE CHEMICAL AGENT DISPOSAL FACILITY
11620 STARK ROAD
TOOELE, UTAH 84074

July 17, 2002

Tooele Chemical Agent Disposal Facility

PM-20560

SUBJECT: Request for Additional Agent VX M55 Rockets for Use During
the Tooele Chemical Agent Disposal Facility (TOCDF)
Deactivation Furnace System (DFS) Toxic Substance Control
Act (TSCA) Demonstration Burn

Mr. David Kling, Acting Deputy Dir., OPPT
U.S. Environmental Protection Agency
MC 7401M
1200 Pennsylvania Avenue, NW
Washington, D.C., 20460

Dear Mr. Kling:

The National Program Chemical Division (NPCD) of the Environmental Protection Agency (EPA) letter dated April 19, 2002 granted approval for TOCDF to perform a TSCA demonstration test. This test will be performed on the DFS and in conjunction with a Resource Conservation and Recovery Act (RCRA) Agent Trial Burn (ATB) using Agent VX M55 Rockets. The demonstration test approval letter limits the number of rockets that can be processed for the "purpose of conducting the demonstration test burn to no more than two thousand (2,000)". The most conservative interpretation of this limitation is that the 2,000-rocket limit applies to both the shakedown period and the demonstration test.

TOCDF has recently been made aware that some of the VX M56 Rocket Warheads (i.e., the agent bearing component of a M55 Rocket minus the rocket motor assembly and propellant) are also packaged in the same shipping and firing tubes as the M55 rockets. The DFS VX ATB will consist of six runs, three using M55 Rockets as feed and three using M56 Warheads as feed. TOCDF has determined that more than 2,000 PCB contaminated M55 Rockets and M56 Rocket Warheads will be needed to fully prepare the DFS and operators for a successful demonstration test and trial burn. The three DFS ATB runs using warheads as feed can be performed using shipping and firing tubes with or without Polychlorinated Biphenyl (PCB) contamination since some of the warheads will be repackaged in newly manufactured tubes prior to being incinerated. Therefore, the M56 Rocket Warheads to be used in the 3 ATB runs are not included in the following calculations.

TOCDF is requesting to process an additional 1,500 PCB contaminated VX M55 Rockets/M56 Warheads during both the shakedown period and DFS VX ATB/TSCA Demonstration Test for a total of 3,500 PCB contaminated M55 Rockets/M56 Warheads.

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Each run of the demonstration test will last approximately seven hours, including waste feed ramp up to steady state conditions and continued waste feed through sampling train port charges. Three performance runs are scheduled. Enough rockets to perform one performance run will be held in reserve as a contingency. The rocket feed rate will be thirty-one per hour. The total number of M55 Rockets required to perform the demonstration test is 868, rounded to 900. The current 2,000-rocket limit leaves 1,100 PCB contaminated rockets for shakedown. TOCDF will need to process more than 1,100 PCB contaminated rockets and warheads during the shakedown period to ensure a successful test. The additional rockets/warheads will be processed to support operator training and incinerator tuning.

Training - Personnel are organized into four twelve-hour shifts that operate TOCDF twenty-four hours a day, seven days a week. All four shifts will work through the course of each week. The amount of coordination required for execution of a RCRA or TSCA performance test requires some flexibility in the start date. Because rotating shifts are used at TOCDF, a change in the start date of the demonstration test causes a change in the plant personnel who will support the test effort. This requires that all four shifts be prepared and trained to perform the demonstration test. To train the affected personnel from all four shifts will require that each shift operate the DFS at the anticipated demonstration test feed rate (31 rockets/hr) and duration (6 hours) at least two times. If a two-training-run contingency is included, the total number of training runs required is ten. Ten runs, each lasting six hours, at feed rates of thirty-one per hour, will require 1,860 PCB contaminated VX M55 Rockers/M56 Warheads.

DFS Tuning - The DFS is equipped with adjustable shrouds running the length of the kiln that direct DFS room air along the exterior surface of the kiln and into the kiln. This serves to both cool the kiln skin and pre-heat a portion of the air going into the kiln. The incinerator exhaust gas flow rate increases as the shrouds are opened. Incinerator exhaust gas flow rates are greatest when waste feed rates are maximized and the shrouds fully opened. Isokinetic exhaust gas sampling is difficult to maintain if sampling begins before the shrouds are in their final position. Without proper tuning of the DFS and shakedown testing, it will be difficult for TOCDF to demonstrate the widest range of kiln exhaust temperatures. Isokinetic exhaust gas sampling cannot begin until the kiln is fully heated and the shrouds open. TOCDF will require DFS tuning runs lasting six hours each to optimize kiln burner firing rates and shroud positions so that the ideal time to start isokinetic exhaust gas sampling can be determined. The ideal time is that which will support the widest range in kiln exhaust gas temperatures being permitted.

The DFS VX ATB performance runs using M56 Warheads as feed are planned to demonstrate an increased agent feed rate. The agent content of every tenth rocket will be sent to the DFS kiln. Furnace tuning for this method of processing will also be required.

Four runs, each lasting six hours at thirty-one rockets/warheads per hour, require approximately 740 PCB contaminated VX M55 Rockets/M56 Warheads for DFS tuning.

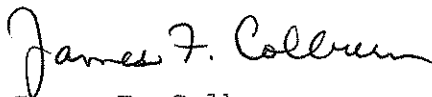
The total required number of PCB contaminated rockets/warheads that are packaged in the original shipping/firing tubes is:

- 740 rockets/warheads for DFS tuning
- 1,860 rockets/warheads for operator training (all shifts)
- 900 rockets for conducting demonstration test (including one contingency run)
- 3,500 total rockets required for shakedown and successful performance of the TSCA Demonstration Test

An increase in the number of PCB contaminated VX M55 Rockets/M56 Warheads used for shakedown and the demonstration test will not impact human health or the environment. The TOCDF has previously conducted a DFS TSCA Demonstration Test using Agent GB M55 Rockets packaged in the same type of shipping and firing tubes containing PCBs. This test was conducted at a higher rocket feed rate (33 per hour) than that proposed for the upcoming test (31 per hour). The PCB Destruction and Removal Efficiency (DRE) that was demonstrated during the test using Agent GB M55 Rockets was greater than six nines. The incineration residues were found to not be a TSCA regulated waste.

If you have any questions, the point of contact is Mr. Richard M. Snell at (435)833-7483 or Mr. Monte S. Caldwell at (435)833-7482.

Sincerely,



James F. Colburn
EG&G Defense Materials
*CERTIFICATION STATEMENT



Dale A. Ormond
Acting TOCDF Site Project Manager
*CERTIFICATION STATEMENT



Harold K. Oliver
Civilian Executive Assistant

Copies Furnished:

Joe Stang
Kris Snow
File

*I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.